

Amendments to the Claims

Claims 1-37 (Cancelled).

38. (Currently amended) A capacitor comprising a pair of capacitor electrodes having capacitor dielectric material therebetween comprising a composite of two immediately juxtaposed and contacting, yet discrete, layers of the identical capacitor dielectric composition comprising a member selected from the group consisting of a strontium titanate, a strontium bismuth titanate, a lead lanthanate zirconia titanate, Ta_2O_5 , and mixtures thereof, both of the discrete layers being crystalline, and comprising an interface where the discrete layers contact which is characterized by a perceptible change in crystallinity from one layer to the other, the perceptible change in crystallinity being characterized by a perceptible interface line between the two discrete layers and a perceptible lateral shift in grain boundaries from the one layer to the other.

Claims 39-41. (Cancelled)

42. (Currently amended) The capacitor of claim 38 wherein the identical capacitor dielectric composition further comprises a barium strontium titanate compound.

43. (Currently amended) The capacitor of claim 38 wherein the identical capacitor dielectric composition further comprises Ta_2O_5 .

Claims 44-45 (Cancelled).

46. (Previously presented) The capacitor of claim 38 constituting an entire capacitor dielectric region between the pair of capacitor electrodes, the entire capacitor dielectric region consisting essentially of the composite of the two immediately juxtaposed and contacting, yet discrete, layers of the identical capacitor dielectric composition.

47. (Previously presented) The capacitor of claim 42 constituting an entire capacitor dielectric region between the pair of capacitor electrodes, the entire capacitor dielectric region consisting essentially of the composite of the two immediately juxtaposed and contacting, yet discrete, layers of the identical capacitor dielectric composition.

48. (Previously presented) The capacitor of claim 43 constituting an entire capacitor dielectric region between the pair of capacitor electrodes, the entire capacitor dielectric region consisting essentially of the composite of the two immediately juxtaposed and contacting, yet discrete, layers of the identical capacitor dielectric composition.

49. (Previously presented) The capacitor of claim 38 wherein at least one of the electrodes predominately comprises a material selected from the group consisting of TiN_x , WN_x , TaN_x , $PtRh_x$, $PtRu_x$, $PtIr_x$, and mixtures thereof.

50. (Previously presented) The capacitor of claim 49 constituting an entire capacitor dielectric region between the pair of capacitor electrodes, the entire capacitor dielectric region consisting essentially of the composite of the two immediately juxtaposed and contacting, yet discrete, layers of the identical capacitor dielectric composition.

51. (Previously presented) The capacitor of claim 38 wherein one of the two layers has a thickness of from 10% to 90% of a combined thickness of the two layers.

52. (Previously presented) The capacitor of claim 51 constituting an entire capacitor dielectric region between the pair of capacitor electrodes, the entire capacitor dielectric region consisting essentially of the composite of the two immediately juxtaposed and contacting, yet discrete, layers of the identical capacitor dielectric material.

53. (Previously presented) The capacitor of claim 51 wherein at least one of the electrodes predominately comprises a material selected from the group consisting of TiN_x , WN_x , TaN_x , PtRh_x , PtRu_x , PtIr_x , and mixtures thereof.

Claims 54-55. (Cancelled)

56. (Previously presented) A capacitor comprising:

a first capacitor electrode;

a capacitor dielectric layer over the first capacitor electrode, the capacitor dielectric layer having a lower portion comprising a barium strontium titanate composition and an upper portion comprising a barium strontium titanate composition identical to the lower portion, the lower and upper portions being immediately juxtaposed, the upper portion having perceptible change in crystallinity relative to the lower portion characterized by a perceptible interface line between the two discrete portions and a perceptible lateral shift in grain boundaries across the interface; and

a second capacitor electrode over the capacitor dielectric layer.

57. (Previously presented) The capacitor of claim 56 wherein each of the upper and lower portions further comprise one or more materials selected from the group consisting of strontium titanate, strontium bismuth titanate, lead lanthanate zirconia titanate, Ta_2O_5 , and mixtures thereof

58. (Previously presented) The capacitor of claim 56 constituting an entire capacitor dielectric region between the first and second capacitor electrodes, the entire capacitor dielectric region consisting essentially of the upper and lower portions of the dielectric layer.

59. (Previously presented) The capacitor of claim 56 wherein at least one of the electrodes predominately comprises a material selected from the group consisting of TiN_x , WN_x , TaN_x , PtRh_x , PtRu_x , PtIr_x , and mixtures thereof.